

AN ANALYSIS OF RECENT DEVELOPMENTS IN NEURO FINANCING AND CARBON FINANCING IN INDIA

KANKIPATI AJAY KUMAR¹, MAGANTI SIREESHA²

M.B.A., M.COM., (PH.D)

Research Scholar at K L UNIVERSITY & Assistant Professor at
Rise Krishna Sai Gandhi Group of Institutions,
Department of Management Ongole, Prakasam Dist.

ABSTRACT: *The main objective of the present paper is to review the field of behavioral finance, its new area, the Neuro finance, research carried out in this area. In order to achieve this goal, behavioral finance, its characteristics and Neuro finance are briefly presented. After that, a part of the research conducted on this new field will be discussed. Behavioral finance is one of the new fields of financial issues which is a combination of finance and psychology. The aim of behavioral finance is to study the behavior of investors and financial markets. It is concluded that the behavioral finance can explain some certain capital market behaviors that cannot be explained by existing theories. In recent trend the Carbon financing is an innovative funding tool that places a financial value on carbon emissions and allows companies wishing to offset their own emissions to buy carbon credits earned from sustainable projects. This allows for the financing of innovative projects that bring sustainable energy solutions to people living in developing countries worldwide this provides a means of increasing the use of fuel-efficient stoves which can help reduce tensions between refugees and host communities over competition for scarce natural resources, and the risk of respiratory infections caused by indoor air pollution.*

Key words: *Carbon Financing, Neuro Financing, Modern Finance, innovative Strategy.*

INTRODUCTION

In recent years new fronts have been rapidly developing in investments and financial markets. In particular, the behavioral finance, evolutionary finance, and neurofinance are challenging the traditional finance. Whether the financial markets, in particular the stock markets, are efficient or not

and whether market participants are rational or not, depend to a large extent on the ways people look at the markets. They look at exactly the same empirical evidence or findings, but they may interpret the observations quite differently. People are yet different biologically, genetically, in education and training, in experience, in opportunities, and many other aspects. Financial market participants and researchers have diversified background in education, training, experience, investment objectives, available information, time constraint, capability of analyzing and processing available data, and the ability to predict the future uncertain conditions. Active investors and academic researchers are quite different in many aspects just mentioned. Technical analysis, which is inconsistent with efficient market hypothesis (EMH), has been an important tool for most market participants since the beginning of financial markets. The key controversy between proponents of EMH and advocates of behavioral finance centers on the extent or degree of market efficiency, investors' rationality, and interpretations of many empirical findings. many economists (including financial economists) have successfully incorporate-rated bounded rationality into their models to describe economic, investment, or market behaviors. Third, specific conditions may favor either bounded or unbounded rationality. Finally, limitations on human cognition must be treated as a scarce resource and therefore the bounded rationality is consistent with the fundamental tenet of economics. Gabaix and Lisbon (2000) have developed and tested a bounded rational decision algorithm which can make quantitative behavioral predictions and is broadly applicable, and empirically testable. Their data overwhelmingly reject the rational model. When affect and

emotion are taken into account, human behavior may frequently turn from bounded rationality to irrationality.

CARBON- FINANCING

What is carbon financing? Carbon credits are used by companies to compensate for their carbon emissions, by either adhering to emission allowances or contributing to sustainable projects. This is typically done through an exchange – or carbon financing – which takes the form of an annual payment to a project partner, be it public, private, NGO or other entity, for the emission reductions generated once the project is operational. Carbon financing increases the financial viability of projects, creating an additional revenue stream and enabling the effective transfer of technologies and know-how. It provides a means of leveraging new private and public investment in projects to reduce greenhouse gas emissions in developing countries and economies in transition.

NEURO –FINANCING

Neuro finance from another point of view, behavioral finance can be divided into two parts: behavioral finance micro (BFMI) and behavioral finance macro (MFMA). Michael Pompeian (2006) divided behavioral finance into two parts and provided the following definitions: A. Behavioral Finance Micro: it examines the behavioral biases of investors. The most prominent of these biases include "over-confidence" and "mental accounting". In fact, behavioral finance challenges two basic assumption of the standard finance. The first issue is the economic wise man and the second is rational and efficient markets debate. Behavioral finance micro examines the challenges ahead of the first assumption. Behavioral finance macro deals with the challenges of the second assumption. Obviously, some issues are related to behavioral finance micro and other related behavioral finance macro. Research conducted in the field of behavioral finance micro has led to new concepts such as Neuro finance. In fact, neuro finance is a bridge between brain and financial sciences to obtain a better understanding of the financial and economic decisions of individuals. Neuro finance examines the neurological basis of mental state on financial decisions. Neuro finance led to studies that examine the effect of Affects on the decisions. Afterwards, the effect of various types of hormones on risk-

taking of individuals. The various parts of the brain and neural pathways and the effects of different drugs and various states of individual on decision-making method were examined. The evidence represents distinct brain systems in regard to emotional processing. Excessive activity or suppression of each of these systems can lead to errors in decision making including financial decisions. However in this paper, as a subjective, personal and immediate experience, emotion-related thoughts and observations are defined. Naturally, external appearances including facial expressions, tone of voice. And posture considered as mental state. A positive state is indicative of optimism and evaluation of profits or anticipated profits. The negative state will prevent us from positive activities. The decision to make a profit, imagination on expected profit, activates the brain's reward system. The nerves that transmit information to the reward system transmit information through dopamine neurons messaging (a chemical nerve agent). Recently, it was found that dopamine is involved in the attention, state, educating, stimulating, reward valuation and follow-up. Dopamine has a major effect on the system of success and increase risk-taking in individuals. activity of brain reward system is correlated with extraversion of individuals. Another active system in the brain is loss avoidance system. This system has been studied less and contrary to the previous system, located in different regions of the brain (the nucleus of the amygdala and the anterior insula). The chemical intermediates in this system are serotonin and norepinephrine. The activity of these substances is causing anxiety which is blocked by selective serotonin reuptake inhibitors known as antidepressants. Neurofinance seek to understand the increased and decreased activity of these systems in the brain. Also, it is trying to modify behavioral biases that led to the loss of people. It even examines the effects of various drugs. The important thing is to understand this performance of these systems in individuals assessing the level of risk- taking and risk-aversion and providing recommendations based on it.

OBJECTIVES OF THE STUDY

Carbon financing increases the financial viability of projects, creating an additional revenue stream and enabling the effective transfer of technologies and know-how.

EFFORTS TO DEVELOPMENT CARBON FINANCING

Great efforts should be made to promote commercial banks to launch financial services innovation in the name of pledge loan business carbon. Establish a carbon credit as financing, which is good potential for CDM (Clean Development Mechanism) project development and corporate credit as a pledge to CERs income right to apply for loans to banks is of an innovative form of innovative form. As CERs income right is a right to future earnings, which has a great uncertainty, so that banks need to pay more attention to the risk of achievements of the right CERs income when providing pledge loans for enterprises. As to enterprises that acquired CERs must go through CDM projects approved by the enterprise, CERs issued by the authenticity and validity. For CDM projects registered in the UN need to be closely tracked of the progress of the project, and up-floating interest rate appropriately in case of risks. Developing financial leasing business based on carbon trading. Companies are not necessarily to purchase pollution discharge and dirty oil treatment facility owing to Clean Development Mechanism (CDM) project, and it releases the working fund of the company. In practice, in order to encourage companies to reduce carbon emissions, financial leasing and carbon right pledge loan can be combined. It offers loan support for the companies that use leased equipment, but also can reduce the risk of CERs right benefits and reduce the possibilities of bad debts of carbon credit secured loans. In practical applications, it might also be combined with factoring and finance leasing.

ENCOURAGE NGOS (NON-GOVERNMENTAL-ORGANIZATION) AND FINANCIAL INSTITUTIONS:

We need to pay attention to the role of financial institutions as financial intermediaries and trading intermediary, allowing financial intermediaries to purchase or develop with the project owner of carbon reduction project. Commercial banks should explore more modes, especially the intermediary service model to satisfy carbon credits to meet the diversity of financial needs except for the carbon rights that has been carried out secured loans and related financial products. Investment banks, financial companies should explore carbon finance, providing new investment ways for investors. Accounting firms, asset appraisal agencies need

CONSTRUCT CARBON CREDIT TRADING PLATFORM

We have to further explore and develop a quota system for carbon emissions quota trading market. Establish and improve standards of risk assessment of carbon to enhance China's international trading in carbon credit pricing, and to create a stable system environment for the development of carbon finance. The development of China's carbon trading platform should be based on the policy and targeted at economic results as the goal. Building a multi-level system includes spot trading and derivatives trading platform including multi-level system. As the market is still in the initial rearing period, the inactive trading hinders the platform to play. We need a more clear policy direction to encourage Chinese enterprises to enter the market platform for trading during the "12th Five-Year plan" period. In that way can we promote the development of spot trading platform, futures and other derivatives trading platform to join Develop Trust category of carbon finance products. Such design philosophy is for those with environmental awareness and knowledge of the enterprises to set up carbon finance Carbon Trust investment fund, the money will be invested in clean development mechanism (CDM) development potential project to obtain the corresponding CERs (CDM emission reduction units) indexes through the development of these projects. Commercial banks or other financial institutions can operate these Carbon Trust categories of financial products. Gradually promoting the securitization of carbon financial assets. Carbon assets that companies will have great potential for the Clean Development Mechanism (CDM) projects (carbon assets) sold to a special purpose agency or company (SPV) (usually are investment banks), SPVs will import these carbon assets to asset pool, and then clear off the securities generated by the asset pool of cash flows. And to form an asset pool of commercial banks carbon right pledge loans, finance leasing specific to carbon credits, assets of open-book credit and bank factoring of business-related carbon emission rights that combined together and make issuance of asset-backed securities. The securitization of carbon asset improves liquidity of the carbon asset, and the risk is transferred, it's conducive to the development of carbon finance. In order to

encourage investment banks to promote securitization of carbon asset, it needs to strengthen the risk assessment institution development of carbon asset, and establish credit mechanism of carbon asset-backed securities

CONCLUSION

How to develop "carbon finance" is a system which needs to set specific standards. In accordance with the principles of sustainable development, government, regulators and financial institutions must issue a mature carbon trading system, as well as scientific and rational interest compensation mechanism to improve the carbon finance markets and carbon financial instruments. Financial institutions play an important role in investment and financing activities of energy saving and economic sustainable development.

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